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ABSTRACT

Twenty Black American males' reactions to slides depicting interracial climate and/or racial oppression were investigated by recording physiological responses, specifically, galvanic skin potential (GSP) and heart rate (HR). Participants were also given the Myers/Stokes Identity Scale (MSIS) to ascertain their reaction to oppression and, based on their scores, placed in one of these categories: "moving toward the oppressor," "moving away from the oppressor," and "moving against the oppressor." Analysis of variance tests were used to determine whether participants' reaction to oppression or the type of slide viewed (assimilation of Black Americans into Euro-American culture versus hierarchical cultural difference implying White as superior to Black) impacted on phasic and tonic GSP and HR. No effects were found, though the viewing of the slides per se caused significant physiological change on these measures. The participants did, however, rate slides depicting racial climate and/or racial oppression significantly differently as reflected in the significant main effects for slide type and participants' MSIS category, and the interaction between the two. Those who were "moving toward the oppressor" responded differently to slide rating than those "moving away from the oppressor" and "moving against the oppressor." (Appendices to this report include the Myers/Stokes Identity Scale, ten pictures used in the study, and rating classifications.) (Author/KH)

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THESIS ABSTRACT

THE OHIO STATE UNIVERSITY
GRADUATE SCHOOL

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NAME: DeVon Renard Stokes

QUARTER/YEAR: Winter 1981

DEPARTMENT: Psychology

DEGREE: M.A.

TITLE OF THESIS: Stress and Identity Among Black Males

DEC 6 1984

Summarize in the space below the purpose and principal conclusions of your thesis.

Twenty African-American males' reactions to slides depicting interracial climate and/or racial oppression was investigated by recording physiological responses, specifically, galvanic skin potential (GSP) and heart rate (HR). Participants were also given the Myers/Stokes Identity Scale (MSIS) to ascertain their reaction to oppression and based on their scores, placed in one of these categories: "moving toward the oppressor," "moving away from the oppressor," and "moving against the oppressor."

Analysis of variance (ANOVA) tests were used to determine whether participants' reaction to oppression or the type slide viewed (assimilation orientation versus hierarchical cultural difference orientation) impacted on phasic and tonic GSP and heart rate. No effects were found, though the viewing of the slides per se caused significant physiological change on these measures.

The participants did, however, rate slides depicting racial climate and/or racial oppression significantly different as reflected in the significant main effects for slide type (assimilation of African-Americans into Euro-American culture versus hierarchical cultural difference implying white as superior to black) and participants' MSIS category, and the interaction between the two. Those who were "moving toward the oppressor" responded differently to slide rating than those "moving away from the oppressor" and "moving against the oppressor." The use of the physiological data in future studies of African-Americans is discussed.

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Andrew J. Schmidt
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STRESS AND IDENTITY AMONG BLACK MALES

A Thesis

Presented in Partial Fulfillment of the Requirements
for the Degree Master of Arts

by

DeVon Renard Stokes, B.A.

The Ohio State University
1981

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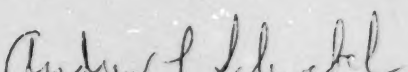

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A recurrent theme in the literature on black identity is black self-hate. Coles (1964), Grier and Cobbs (1968), Grossack (1954), Hauser (1971), Kardiner and Ovesey (1951), and Mussen (1953) are among the writers who argue that this self-hate developed because African-American people suffer from one or more of the following conditions: (1) low self-esteem, (2) impaired identity formation, (c) "pathological" environmental adaptation, that is, low intellectual functioning, (4) in-group hostility, and (5) inferiority complexes.

These arguments were formulated mostly as a result of the works done by Mead (1934) in his "generalized other" and Cooley (1964) in his "looking-glass" self. Both authors argue that a person formulates his self-concept by social interaction. If Mead and Cooley are right, the social atmosphere surrounding African-Americans should impact significantly on their self-concepts. Of greater reality to African-Americans is the fact of racism in this society. Many researchers (Sio, 1969) believe that the conditions of slavery have fostered a negative self concept in the overall development of black personality.

Research is now emerging that questions such earlier conclusions regarding low self-concept among African-Americans (Mack, 1971; Swan, 1974). In fact, many researchers conclude there is no "low self-concept" phenomenon in African-Americans.

> If one were to look only at the location of blacks in various institutional structures, at the numerous disadvantages and disprivileges which they face, it would be hard not to conclude, as so many scholars have done, that blacks should have lower self-esteem. Yet the recent evidence casts doubt upon this conclusion. A finding which flies so square in the face of sound psychological theory must pique our curiosity and command our attention. (Rosenberg & Simmons, 1971)

Gordon (1977), in her extensive analysis of empirical studies covering 35 years of self-concept research in African-Americans further debunks the myth that African-Americans have low self-esteem. Rosenberg (1965) continues to hammer in on this issue. He states:

> Negroes who are exposed to the most intense, humiliating, and crippling forms of discrimination in every institutional area, do not have particularly low self-esteem. (p. 57)

Rosenberg, looking at one occupational group, described white attendants manifesting much lower self-esteem than their black counterparts within a mental institution. He hypothesized that one's esteem may be affected by his position within a group, rather than the entire group's rank with respect to other groups. This circumstance gives evidence to the fact that employment under the aforementioned conditions was considered good for blacks, and to the contrary, humiliating for whites.

This entire issue of negative self-concept has been referred to as "Uncle Tom and Mr. Charlie"[1] research. This name has been applied because researchers, black or white, using stereotypical research frames of reference when discussing African-American people (McCarthy & Yancey, 1973), draw blanket conclusions.

> Afro-Americans are usually classified monolithically, with little reference to specifics on the group being studied. Usually, this type of research ends with sweeping generalities on the entire minority group. (Winbush, 1976)

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[1]Uncle Tom represents African-American researchers and Mr. Charlie represents white researchers. These characters are reflective and typical of names used in the slavery period.

The theory of low self-esteem among African-Americans may just be another example, in psychological research, of making generalities on an entire group without sufficient data. Fortunately, there are studies that question aspects of today's published psychological research (Winbush, Alexander, Lewis, Mullen, & Stokes, 1977), and others which are pointing to the potential values of alternatives to "traditional Euro-American research approaches" (Myers, 1978). Ladner (1973) inquires about "objectivity" within sociological research. Hall and Freedle (1975) maintain that even in higher scientific circles, the cultural background of individual scientists may cloud their reasoning when it is necessary to evaluate differing cultural patterns. Kuhn (1970) and Lakatos (1970) agree that research "interests" and backgrounds correlate with one's attitude toward existing theoretical beliefs. Greenwald (1975) reports that psychologists tend to ignore findings inconsistent with their beliefs.

Some aspects of racial identification as explanation of the behavior of African-Americans have a long history in American psychological research. Clark and Clark (1950), using a force choice technique, reported that white dolls were preferred over black ones when black children were given a choice as to their ultimate preference. They concluded from their findings that these children must have low self-concepts. These and related findings have been replicated numerous times (Asher & Allen, 1969; Greenwald & Oppenheim, 1968; Landreth & Johnson, 1953; Radke, Sutherland, & Rosenberg, 1950).

More recent findings have shown some black children generally preferring the black doll (Gregor & McPherson, 1966; Hraba & Grant,

1970). Johnson (1966) found blacks equal to whites in self-esteem, in their study of the racial attitudes of Negro and White civil rights participants and Negro freedom school participants. Hraba and Grant (1970) note that within inter-racial settings, black youth are not white oriented.

Erikson (1950; 1954; 1959; 1962; 1968) who, ironically, is considered by many (Stokes, 1979) to be the father of black identity, has extensively commented on the "special case" of black adolescents and identity. It would be appropriate to let Erikson (1964) speak for himself:

> Problems of Negro youth span the whole phenomenology of aggravated identity confusion and rapid new identity formation.... (pp. 29-30)

However, in this same compendium of statements concerning identity and Negro youth, Erikson, apologetically, attempts to evaluate himself. In a rare stroke of intellectual humility, he states:

> A lack of familiarity with the problem of Negro youth and with the actions by which Negro youth hopes to solve these problems is a marked deficiency in my life and work and cannot be compensated for with theoretical speculation. (p. 29)

Yet, researchers quite often quote Erikson when discussing black identity (Goodman, 1972; Sizemore, 1972), usually in the context of his epigenetic principal of personality development. Ironically, none of these authors have made any quantitative analysis of Erikson's concept of black identity. Further, there are scientists who have challenged and critically analyzed Erikson's personality development on the black identity (Hayes, 1972; Winbush, 1976; Winbush et al., 1977), basically for his lack of specificity in empirical analysis and his anecdotal

evidence.

In his recapitulation of Negro youth and identity, Erikson (1964) continues to come short in not specifying what group of Negro youth have problems "spanning the whole phenomenology of aggravated identity confusion...." Certainly not all African-American youth have problems, for many authors (Hodgkins & Stakenas, 1968; Johnson, 1970) agree and maintain, contrary to much of the literature, that African-Americans score significantly higher than whites on tests relating to positive identity. Still other authors either found no significant differences or were not able to draw any overall conclusions concerning black and white identity (Bartee, 1968; Hughes, 1968; Lewis, 1967). Quite logically, certain African-American people manifest more anxiety than certain white populations and vice-versa.

Hall and Freedle (1975) observe that there is less confusion when one is secure in his identity in terms of his definition within the system. In other words, African-Americans who are comfortable with the position they aspire to are less anxious. Consequently, they would be under less confusion. Cross (1970) suggests that there exist a series of well defined developmental periods through which African-Americans mature when they confront blackness within themselves. Moreover, he speculated that as a result of their confrontation with themselves and subsequent resolution, they redefine themselves as non-inferior, black, and adequate.

In contrast to Cross' stages in the development of black identity Myers (1977) discusses three reactions to oppression. These she discusses as "moving toward the oppressor," "moving away from the

oppressor," and "moving against the oppressor." The notion of "moving" implies the non-static nature of the identification process. The oppressor is the personification of the white male dominated, materialist ideology that pervades this culture. This ideology she believes impacts on people in U.S. society in a negative way, and particularly on African-Americans. The ideology is considered oppressive because of its consequences, principal among which is self-destructive behavior (e.g., creating stress-ridden competitive life styles, polluting the environment and other extreme materialist orientations, including, substance abuse, smoking, overeating, etc.).

Since the term of "moving" denotes the perpetual response activity involved as one responds to his perceived environment, Myers' directional component emphasized the relationship between individuals and their reaction to their oppression in any one of three patterns at any point in their life time. Implicit in this conceptualization is a developmental growth process as one achieves the ability to overcome the conceptual limits set by oppressive socialization. The progression would be first "toward," then "away," and finally "against." Myers (1977) postulates[2] as follows: (1) During the stage of "moving toward the oppressor"--similar to the "identification" with the aggressor" concept discussed by Freudians--the person has internalized the world view and values of mainstream white society, including the negative attitudes about African-American people. (2) During the stage of "moving away from the oppressor" a person can be characterized by

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[2]For additional information and understanding refer to Na'im Akbar's (1980) "Mental Disorder Among Afrikan-Americans."

his attempts at psychological distancing--the person has developed almost a dual lifestyle in which some aspects of his life (e.g., work/career endeavors) lead him into mainstream white society and others (e.g., personal/social life) are predominantly black oriented. This individual seeks to psychologically distance himself from harsh realities of racist society in many ways, but he is aware that he must function within the system and is in a dilemma as to what to do. (3) During the stage of "moving against the oppressor"--the person has rejected the world view, assumptions, and values of mainstream white society (e.g., materialism, competition, individualism) and has sought to implement an alternative system. This person may function within mainstream society to an extent, but does so without the psychosocial orientation of that society.

Given this understanding, one might expect that the more deeply entrenched one is into a social identity system that negates his or her identity, the more anxiety one will experience. For example, empirical studies by Dyer (1976) and Rosenman and Friedman (1974) have shown that the consequences of this socially determined identity system lead to negative identities.

There are numerous studies that test the concept of identity in relationship to anxiety (e.g., Kalunian, 1975; Epstein, 1976). While Milgram and Milgram (1976) found that the self-concepts of their subjects did not effect the rise in their anxiety level, Howard and Kubis (1964) indicated that individuals who exhibited high anxiety and hostility, scored low on positive identity. Specifically, in the area of test anxiety Kalunian (1975) found, in reference to a humanistic

education curriculum, that when positive self-concept increased, test anxiety decreased. Schubert (1975), however, reported that test anxiety had no effect on self-esteem. Some of these studies are consistent with Erikson's characteristics of negative identity. That is, Erikson has stated in several publications describing his theory, that negative self-esteem is characterized in low identity along with anxious behavior. The present study will, using Myers' (1977) classification system, look at the relationship between identity and anxiety.

It is hypothesized that African-Americans manifesting negative identity (Erikson's identity diffusion, 1964, pp. 29-30) will be those who react to oppression by "moving toward the oppressor." They would be more likely to suffer from increased negative identity because they are seeking positive regard from a racist society and have internalized racist notions of their inferiority and white superiority. Increased anxiety, either consciously experienced or manifested, would be expected among these persons because they base their worth on external or socially determined criteria much like Mead and Cooley hypothesized. These people experience frustration, rejection, and discrimination yet "want to be white" and cannot achieve that racial identity.

In contrast, individuals "moving away from the oppressor" are characterized by psychological distancing themselves from harsh realities of racist society. This psychological distancing is an effort to buffer the individuals, psychologically, from realities of racial oppression. As such, they still hold the values and beliefs of mainstream whites and may still seek the American dream. They are

cognizant of racism but try to minimize its impact through the psychological defense of escapism. This, typically, takes the form of separating professional work life that is white oriented and private personal life that is black oriented. The fact that their basic values and beliefs are still primarily Euro-American, is evidenced in their imitating what they see in white America, however, "blackenizing" it (e.g., black country clubs, black Greek letter organizations, Miss Black America contest, and so on). Extreme forms of this psychological distancing may include alcohol and drug abuse, religious fanaticism, and other efforts to escape.

Persons "moving against the oppressor" are characterized by a rejection of Euro-American society values (i.e., materialism, competition, individualism, and world view). Because they have rejected these values they are not subject to the same kind of stress and anxiety that characterize materialist, future-oriented, mainstream society. However, because they seek to exist in a social environment whose values are counter to their belief, their orientation is constantly counter to prevailing beliefs. This impacts on and challenges them constantly throughout their lifetime. While fewer people would fall into this category, various religious groups espouse beliefs that might exemplify this orientation (e.g., Islamic groups and Christian Scientist).

The question to be examined in the present research is to what extent, if any, do the values and world views of African-Americans as evidenced in their reaction to the oppressor correspond to outward anxiety levels evoked in reaction to the viewing of slides illustrating

interracial scenes and racial climate. Anxiety, like emotion, arousal, stress, and tension, has any number of physiological concomitants available to measure. For example, in one classic study, Ax (1953) tested the differences between the emotions of fear and anger in humans. Using a variety of measures (i.e., cardiovascular, electrodermal, respiratory, and muscle) he found that emotions could be distinguished from one another based on various physiological measurements. Hess (1972) found a strong correlation between pupillary dilation and sweat-gland activity (electrodermal activity). Janisse and Peavler (1974) reported, in their study of telephone operators, that the more difficult method for looking up telephone numbers produced wider pupil dilation while causing greater fatigue.

Galvanic skin response (GSR) or electrodermal activity (EDA) is used as a measure for "emotional" sweating (Hassett, 1978) or anxiety (arousal). There are numerous kinds of electrodermal activity, all of which measure either "emotional" sweating or sympathetic arousal. These are skin potential level (SPL), skin potential response (SPR), spontaneous skin potential response (SSPR), skin resistance level (SRL), skin resistance response (SRR), spontaneous skin resistance response (SSRR), skin conductance level (SCL), skin conductance response (SCR), and spontaneous skin conductance response (SSCR). Ordinarily, all of these measures are taken by placing electrodes on the fingertips or palm of the hand to record responses. Recordings may also be measured from the feet, forehead, and underarms.

Another measure correlated with stress and tension is cardiovascular function (see Masters & Johnson, 1966; Gunn et al., 1972).

These cardiovascular measures can be subdivided in five features: (1) heart rate, how fast the heart pumps; (2) contractile force, how hard it pumps; (3) cardiac output, how much it pumps; (4) blood pressure, the force with which the liquid moves; and (5) blood flow, localized measures of the distribution of blood. Because of the current technological limitations heart rate (HR), blood pressure (BP), and blood flow (BF) are the most widely used in psychophysiology (Hassett, 1978).

With all of the measures discussed above, it has been observed that physiological changes will always occur in any given situation when an organism is presented with an unexpected or new stimulus (Lynn, 1966). This fact was considered in planning this study and in choosing the measures. For the purpose of this study it was decided to use galvanic skin potential (GSP) as the measure of arousal (anxiety) and heart rate (HR) as a covariate.

African-Americans will be categorized into three groups, those "moving toward the oppressor," those "moving away from the oppressor," and those "moving against the oppressor." Using GSP and HR as measures of anxiety it is expected that differing amounts of stress will be evidenced in the participants, depending on their differing reactions to oppression. In other words, it is hypothesized that African-Americans, depending on their orientation, will show differing amounts of physiological stress in reaction to viewing stimulus materials. One specific hypothesis is proposed: African-Americans[3] who respond to

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[3]For research purposes it was decided to run only males. Further investigation is needed to test these propositions with females.

racism by "moving toward the oppressor" will show greater amounts of physiological stress as measured by phasic (assumed to measure stress; Walker, 1976) GSP than African-Americans "moving away from the oppressor"; and in turn, African-Americans "moving away from the oppressor" will show greater physiological stress as measured by phasic GSP than African-Americans "moving against the oppressor."

METHOD

Participants

Twenty African-American males between the ages of 18 and 51 were samples in this study. The participants were drawn from the Columbus, Ohio community, attracted by presentations made by the author.

Instruments

Identity Measure. Participants were given the MSIS, a black identity scale developed by Myers and the author, consisting of 27 statements that are parallel to Cross' (1970) stages of black identity development (see Appendix A). The scale was developed as follows. Myers and Stokes wrote 27 statements typifying the categories of "moving toward the oppressor" and "moving against the oppressor." The "moving away from the oppressor" category was assumed to fall between the "moving toward" and the "moving against" categories. The statements were then rated and placed in the categories by ten black professors and teaching assistants who read the author-written description of the three reactions to oppression and judged in which category

each fell. After the statements were rated the Guetzkow (1950) test was applied. In twenty-two of the twenty-seven statements there was found a reliability of 80% or more.

Participants were subsequently placed in one of the three categories based on their responses to these twenty-two statements. This was done as follows: five points were allotted for each response while minus five was the lowest score that could be recorded for a response. Plus five points or minus five points were given to each strongly disagree and strongly agree response, depending on their orientation. Plus three points or minus three points were given to each disagree and agree response, again depending on the direction. Plus scores were awarded for responses on the "moving against the oppressor" dimension. Zero was given to each neutral response. Totals for each protocol were figured and found to range from 36-110. Then total scores were divided into thirds. As a result, 73-110 reflected the identity of "moving against the oppressor"; 37-72 denoted the identity of "moving away from the oppressor"; and scores of 36 and below characterized the identity of "moving toward the oppressor." There were six (6) participants in "moving toward," six (6) participants in "moving away," and eight (8) participants in "moving against."

Interracial and/or Racial Climate Slides. Twenty-eight photos depicting interracial interaction and/or racial climate in the United States, excluding those exemplifying obvious violence or oppression were solicited from The Ohio State University Photography Department. The 28 non-systematically selected photos were viewed by a panel of

10 black graduate students. They were asked to determine the ten best characterizations based on two groupings: five (5) showing an assimilation orientation (i.e., accepting values of mainstream white society) and five (5) reinforcing hierarchical depictions of cultural differences (i.e., white is superior and black is inferior). Agreement in categorizing individual slides used in this study were as follows: Photo one (1) received 100%; photo two (2) received 100%; photo three (3) received 80%; photo four (4) received 90%; photo five (5) received 90%; photo six (6) received 80%; photo seven (7) received 80%; photo eight (8) received 100%; photo nine (9) received 80%; and photo ten (10) received 100%. These ten slides were the only photographs that had 80% or better. Slides/pictures 2, 4, 6, 7, and 8 represented the assimilation orientation and slides 1, 3, 5, 9, and 10 represented hierarchical depictions of cultural difference. Photographs are presented in Appendix B in the sequence they were shown to each participant. There was a twenty second adaption period before each slide was shown.

Rating Scale. A piece of cardboard (4 x 12 inches) containing a 7-point Likert type scale was placed in each participant's lap. This Likert type scale contained degrees of pleasantness versus unpleasantness. Participants were asked to respond out loud with the number that corresponded to the degree of pleasant versus unpleasantness they experienced viewing each slide. An example of the rating scale is shown in Appendix C.

Heart Rate. Grass E5S cup electrodes filled with EKG Sol were placed on the lower rib cage and the right collar bone. The signal

was amplified by a Grass wide band A.C. preamplifier and averaged by a Grass cardiotachometer to provide beat-by-beat heart rate recordings. Pre-test scores were measured prior to the initial stimulus for each subsequent slide.

Galvanic Skin Potential (GSP). Beckman AgAgCl low-standing potential electrodes, filled with an electrode paste of .05N NaCl was applied on the surface of the participant's skin. On the participant's non-preferred hand, an active electrode was placed on the volar surface of the second phalange of the middle finger. The volar surface of the same forearm was chosen as the reference site. Prior to the placement of those electrodes, body oils were removed and resistance at both electrode sites were reduced by swabbing both with acetone and rubbing the reference site with a cotton gauze pad to remove the epidermal layer. In order to balance the DC potential and keep the oscillograph on channel, a bucking voltage was introduced by a preamplifier. Electrodes were stored in 5% saline solution and tested prior to each testing session to make sure they were balanced. Electrodes that showed a potential difference of more than 100uv were not used.

Procedure

The experimenter established rapport with the participant and seated him at a table and asked him, to the best of his ability, to complete the Myers/Stokes Identity Scale. After the completion of the scale each participant was asked to sign the Human Subjects Consent Form. The participant was then asked to take part in the second half

of the experiment. There were no participants who refused. Each participant was told that his physiological responses would be measured while observing slides of interracial groups and/or racial climate. After he agreed the participant was placed in an electrically shielded and sound-attenuated chamber and comfortably seated. When the participant was seated in a reclining chair the previously prepared GSP and heart rate electrodes were attached.

After the electrodes were placed each participant was asked to breathe normally and move as little as possible. The E left the chamber and entered the control room from which the participant could be heard and spoken to through an intercom system. Baseline measures were recorded for 3 minutes while the participants adjusted to the experimental chamber. Following the baseline recordings, each participant was asked if he was comfortable. Following an affirmative reply these instructions were read to him over the intercom:

> You will be shown 10 pictures/slides at 18 second intervals that depict interracial interaction and/or racial climate in the United States, excluding obvious violence or oppression. In your hand is a piece of cardboard with 7 numbers and their written equivalencies. One will be classified as extremely unpleasant, and so forth, to 7 being classified as extremely pleasant. After each slide I want you to tell me the number out loud that corresponds to the degree of pleasant versus unpleasantness. Do you have any questions? If not, then we will begin.

Physiological measures were recorded for one minute between the instructions and the presentation of the first slide. Each participant received the 10 slides in exactly the same order. Fifteen

seconds were allotted for the observance of each slide so physiological responses to each stimulus could be recorded. Based on the work of Kilpatrick (1972) and Weerts and Roberts (1976), between each 15 second interval (slide presentation), participants were given an additional 20 seconds to relax so physiological responses could return to baseline. Prior to each succeeding stimulus an additional eight (8) seconds was used to balance and record the DC potential. After the 10 slides were presented the participant was thanked and debriefed as to the purpose of the study. Electrodes were removed, and the experiment concluded.

Recording, programming, and slide presentation equipment were in an adjacent room that was linked to the testing chamber by an intercom system. BRS Foringer Digibit Units were used to program the Kodak Carousel Slide Projector to present each of the slides for 15 seconds. Physiological measures and responses were recorded with a Grass Model 7B polygraph equipped with the appropriate preamplifiers and driver amplifiers.

Data Reduction

Six measures were examined for each participant's record: categories (i.e., "moving toward the oppressor," "moving away from the oppressor," and "moving against the oppressor") social economic status, slide rating scale, heart rate (HR), galvanic skin response (GSR) level, and galvanic skin potential (GSP). Details pertaining to the use of heart rate (HR) and galvanic skin potential (GSP) are presented below.

Heart Rate (HR)

A. Heart beats recorded on the tachometer preceeded by and followed by beats lower than themselves (cyclic maxima) were recorded as well as heart beats which were preceeded by and followed by beats higher than themselves (cyclic minima). Averages of cyclic maxima and cyclic minima yielded a mean heart rate score for each minute.

B. Average cyclic minima was subtracted from average cyclic maxima to obtain a heart rate variability score.

C. Heart rate change scores were obtained by subtracting the mean prestimulus heart rate from the mean heart rate during the stimulus period.

Galvanic Skin Potential (GSP)

A. The magnitude (in mv) of the D.C. potential required to balance the two electrodes was recorded.

B. The number of negative baseline shifts (tonic responses) was tallied.

C. The magnitude of the largest tonic responses for each minute was recorded in mv.

D. The frequency of a-waves (Forbes, 1964) or phasic responses was recorded.

Design

An analysis of co-variance (CANOVA) and an analysis of variance (ANOVA) were the statistical models used to test the hypothesis of the study.

RESULTS

The results will be discussed in the following section. First, the GSP and the GSR level data will be presented. The data collected on heart rate and heart rate changes will follow. Finally, the data gathered in the rating of slides will be shown.

Galvanic Skin Potential (GSP)

Based on a 3/10 (oppression reaction category/slides) analysis of variance (ANOVA) phasic responses were not found to be effected by the "moving toward," "moving away," and "moving against" categories (reactions to oppression) or by a slide/category interaction. The means and ANOVA data are presented in Table 1. However, phasic responses did increase significantly in participants as slides were observed ($F_{9,153}$ = 6.63; $p \leq .001$). A 3 x 2 (oppression reaction rates/orientations) ANOVA indicated that phasic responses were also significantly effected by slide category, with the assimilation commanding less phasic responses than the hierarchical cultural difference orientation ($F_{1,17}$ = 12.16; $p < .01$). The means were as follows: slides showing assimilation, moving toward .067, moving away .156, moving against .075; slides showing hierarchical cultural difference, moving toward .200, moving away .189, and moving against .200.

A 3 x 10 (oppression reaction category/slides) ANOVA revealed no significance in the tonic responses when the slides were observed. However, when slides were grouped into the assimilation and hierarchical cultural difference orientations the 3 x 2 ANOVA (oppression reaction x category x slide orientation) indicated borderline

Table 1

Cell Means for Dependent Variables of GSP, GSR Level, Heart Rate, and Slide Rating by Oppression Reaction Categories

Dependent Variables	Oppression Reaction Categories: Moving Toward	Moving Away	Moving Against	Mean of All Participants
GSP				
Phasic (per 15 seconds)	.133	.172	.138	.147
Tonic (per 15 seconds)	.533	.478	.379	.455
GSR Level (voltage changes of the skin for each slide)	27.738	32.287	30.939	30.383
Heart Rate (beats per minute)	63.412	72.641	67.847	67.955
Slide Rating (on 7 point scale, 7 = extremely pleasant)	4.550	4.200	3.800	4.145

significance in the slide/category interaction ($F_{2,17} = 2.58$; $p \leq .10$). Figure 1 illustrates the interaction (slide/category) which was seen in the tonic GSP responses. Dunn's post hoc comparison revealed "moving toward" participants tended to react differently than the "moving away" and the "moving against" participants in viewing the two orientations of slides ($F_{2,17} = 2.35$; $p < .10$).

Galvanic Skin Response (GSR) Level

A 3 x 10 (oppression reaction category/slides) ANOVA was performed and showed no significance in oppression reaction categories and no interaction. However there was a main effect for the slides which was manifest in a significantly increased skin response ($F_{9,153} = 2.76$; $p \leq .01$). The 3 x 2 (oppression reaction category/slide orientation) ANOVA showed no main effects or interaction.

Heart Rate

A 3 x 10 (oppression reaction category/slides) analysis of covariance (CANOVA), covarying out the 5 second pre-stimulus period, revealed no main effect for the oppression reaction categories, or for the interaction. However, a main effect was observed in heart rate when slides were observed ($F_{9,153} = 3.57$; $p \leq .001$) (see Table 2).

When the covariate was deleted and a 3 x 10 (oppression reaction category/slide orientation) ANOVA was performed and it was found that the observance of the 10 slides significantly increased the heart rate of participants ($F_{9,153} = 3.57$; $p \leq .001$). Yet, this same analysis revealed no significant difference between the participants in the

Table 2

Cell Means for Dependent Variables of GSP, GSR Level, Heart Rate, and Slide Rating by Slide Type

	Slide Type	
Dependent Variables	Assimilation Orientation	Hierarchical Cultural Difference Orientation
GSP		
Phasic (per 15 seconds)	.097	.197
Tonic (per 15 seconds)	.427	.483
GSR Level (voltage changes of the skin for each slide)	30.558	30.208
Heart Rate (beats per minute)	67.580	68.329
Slide Rating (on 7-point scale, 7 = extremely pleasant)	4.550	3.740

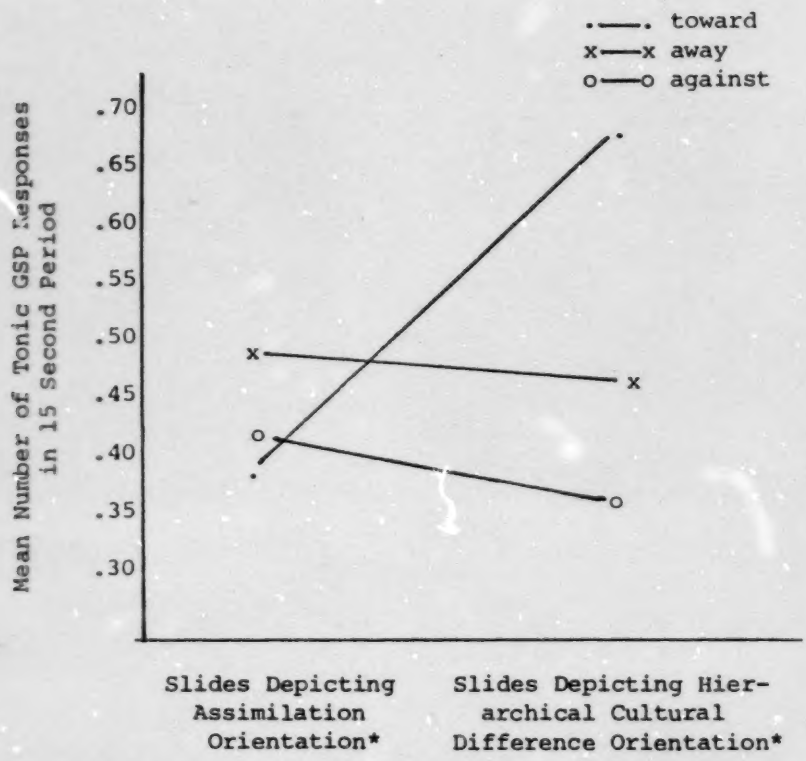

Figure 1: Tonic GSP Activity by Slide Category and Oppression Reaction Category.

*Assimilation orientation slides are numbers 2, 4, 6, 7, and 8, and photos are shown in Appendix B; Hierarchical Cultural Difference Orientation slides are numbers 1, 3, 5, 9, and 10. Photos of all slides are shown in Appendix B.

three oppression reaction categories. Further, no significance was revealed in the slide orientation/oppression reaction category interaction.

A 3 x 2 (oppression reaction category/slide orientation) ANOVA showed no significant changes in the heart rate of the participants. The means of each group are presented in Table 5.

Slide Rating

A 3 x 10 (oppression reaction category/slides) ANOVA was performed and a main effect was found for the oppression reaction categories; that is, the total scores of participants in the "moving toward," "moving away," and "moving against" categories were significantly different from each other ($F_{2,17} = 4.18$; $p < .05$). There was also a main effect for slides ($F_{9,153} = 11.77$; $p < .001$) and a trend toward significance in the oppression reaction category/slide orientation interaction ($F_{18,153} = 1.51$; $p < .10$). Dunn's post hoc comparison (Kennedy, 1977) was conducted and showed a borderline significance (see Figure 1). That is, oppression reaction category and slide orientation interaction significantly effected subjects "moving toward" and "moving against" the oppressor ($F_{18,153} = .908$; $p < .10$) (see Figure 2).

A 3 x 2 (oppression reaction category/slide orientation) ANOVA revealed a main effect in the oppression reaction category, the slide orientation, and the interaction. Specifically, there was a main effect for oppression reaction categories ($F_{2,17} = 4.18$; $p < .05$), a main effect for slide orientation ($F_{1,17} = 20.17$; $p < .001$), and a significant interaction ($F_{2,17} = 3.56$; $p \leq .05$). The means are

Table 3

Cell Means within Oppression Reaction Categories for GSP, GSR Level, Heart Rate, and Slide Rating, by Slide Type

	Oppression Reaction Categories					
	Moving Toward		Moving Away		Moving Against	
Slide Type:	Assimilation Orientation	Hierarchical Cultural Difference Orientation	Assimilation Orientation	Hierarchical Cultural Difference Orientation	Assimilation Orientation	Hierarchical Cultural Difference Orientation
Dependent Variables:						
GSP						
Phasic (per 15 seconds)	.067	.200	.156	.189	.075	.200
Tonic (per 15 seconds)	.389	.678	.489	.467	.408	.350
GSR Level (voltage changes of the skin for each slide)	27.862	27.614	32.268	32.306	31.298	30.579
Heart Rate (beats per minute)	63.149	63.676	72.618	72.664	67.125	68.568
Slide Rating (on 7-point scale, 7 = extremely pleasant)	4.667	4.433	4.567	3.833	4.450	3.150

Table 4

Analysis of Variance (ANOVA) for GSP, GSR Level, Heart Rate and Slide Rating of Data Collected During Slide Observation

10 Slides Depicting Interracial Interaction and/or Racial Climate

	df	F	Significance Level
GSP (Phasic)			
Oppression Reaction Category	2,17	.07	NS**
Slide Orientation	9,153	6.63	$\leq$ .001
Interaction*	18,153	.64	NS**
GSP (Tonic)			
Oppression Reaction Category	2,17	.92	NS**
Slide Orientation	9,153	.54	NS**
Interaction*	18,153	1.34	NS**
GSR Level			
Oppression Reaction Category	2,17	.48	NS**
Slide Orientation	9,153	2.76	$\leq$ .01
Interaction*	18,153	.94	NS**
Heart Rate			
Oppression Reaction Category	2,17	1.12	NS**
Slide Orientation (ANOVA)	9,153	3.57	$\leq$ .001
Interaction*	18,153	.68	NS**
Slide Rating			
Oppression Reaction Category	2,17	4.18	< .05
Slide Orientation	9,153	11.77	< .001
Interaction*	18,153	1.51	< .10

*Interaction = Oppression Reaction Category/Slide Orientation
**NS = Not Significant

Table 5

Analysis of Variance (ANOVA) for GSP, GSR Level, Heart Rate, and Slide Rating with Data Grouped by Slide Type

Assimilation and Hierarchical Cultural Difference Orientations

	df	F	Significance Level
GSP (Phasic)			
Oppression Reaction Category	2,17	.07	NS**
Slide Orientation	1,17	12.16	< .01
Interaction*	2,17	1.26	NS**
GSP (Tonic)			
Oppression Reaction Category	2,17	.92	NS**
Slide Orientation	1,17	1.05	NS**
Interaction*	2,17	2.58	≤ .10
GSR Level			
Oppression Reaction Category	2,17	.48	NS**
Slide Orientation	1,17	.66	NS**
Interaction*	2,17	.36	NS**
Heart Rate			
Oppression Reaction Category	2,17	1.12	NS**
Slide Orientation	1,17	2.14	NS**
Interaction*	2,17	.86	NS**
Slide Rating			
Oppression Reaction Category	2,17	4.18	< .05
Slide Orientation	1,17	20.17	< .001
Interaction*	2,17	3.56	≤ .05

*Interaction = Oppression Reaction Category/Slide Orientation
**NS = Not Significant

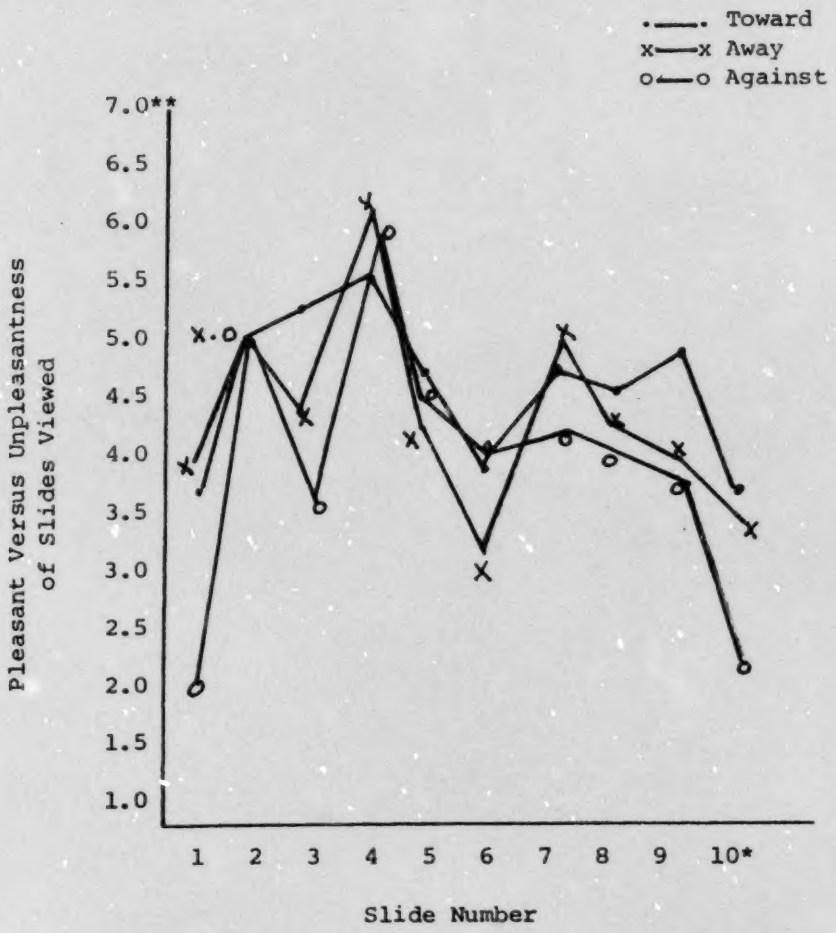

Figure 2: Individual Slide Rating by Oppression Reaction of Participants.

*See Appendix B for photos of slides.

**In the Likert type scale used "7" was labeled "extremely pleasant" and "1" labeled "extremely unpleasant." See Appendix C for scale depicting rating response choices.

presented in Table 1 and depicted in Figure 3. Dunn's post hoc comparison found no significant difference between the "moving toward" and the "moving against" categories; however, "moving against" participants responded significantly different than the other two oppression reaction categories in viewing the two orientations of slides ($F_{2,17} = 4.93$; $p < .01$).

DISCUSSION

The results of this study did not support the original hypothesis that African-Americans who respond to oppression by "moving toward the oppressor" will show greater amounts of physiological stress as measured by phasic GSP and heart rate than African-Americans "moving away from the oppressor" and that, in turn, African-Americans "moving away from the oppressor" will show greater physiological stress as measured by phasic GSP and heart rate than African-Americans "moving against the oppressor." However, there was significant change in physiological activity when the participants observed the slides which depicted both interracial interaction and racial climate in the United States. Specifically, there was significant change from base rates in participants' phasic GSP, galvanic skin response (GSR) level, and heart rate acceleration when they observed the slides.

The fact that physiological changes were found in participants when observing slides and that these changes were not found to be associated with the three different categories of reactions to oppression can be interpreted in several ways. One explanation of the change in phasic GSP and heart rate is that no matter what orientation

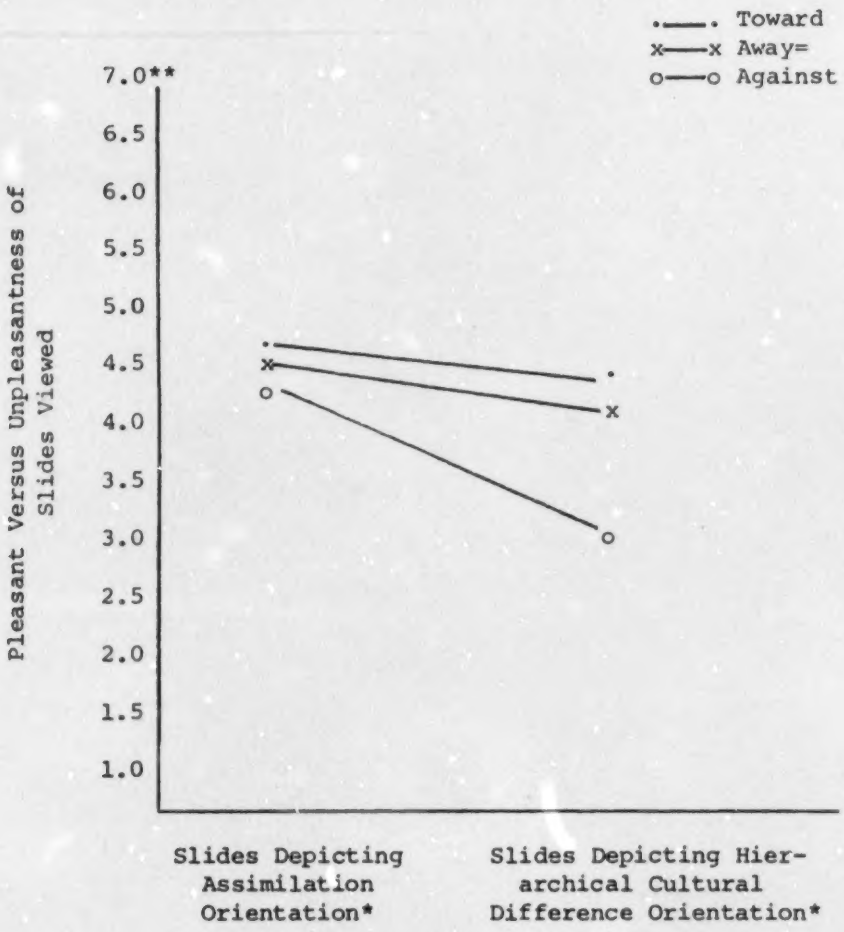

Figure 3: Individual Slide Rating by Oppression Reaction Category of Participants.

*Assimilation orientation slides are numbers 2, 4, 6, 7, and 8, and photos are shown in Appendix B; Hierarchical cultural difference orientation slides are numbers 1, 3, 5, 9, and 10. Photos of all slides are shown in Appendix B.

**In the Likert type scale used "7" was labeled as "extremely pleasant" and "1" was labeled "extremely unpleasant." See Appendix C for scale depicting rating response choices.

African-Americans may have toward mainstream society, physiological changes occur in respect to their reaction to racially laden materials. However, no control group of white participants was employed in the present study so this notion cannot be verified. Another control technique that should have been used in the study is the presentation of control slides; that is, a variety of slides without a racially laden orientation. These could have been used to shed some light on the impact of presenting and the process of viewing slides, per se. Regardless, this explanation (that African-Americans experience physiological changes in viewing racially laden slides) needs to be verified or refuted in future research which uses a control group of white participants or dummy slides. A second possible explanation is that African-Americans that are "moving toward," "moving away," and "moving against" do in fact experience the stress involved in viewing the materials in the slides differently, but that galvanic skin potential (GSP) and heart rate (HR) are not the appropriate physiological measures to detect the changes in stress associated with the slide viewing. A third possibility centers around the participants used. Although the third who scored lowest on the MSIS scale were labeled "moving toward" their scores were above zero. Different subjects, perhaps those less culturally aware, would have below zero scores and perhaps have reacted differently. Many other explanations are also possible. Future studies, using other physiological measures may find differences in African-American reactions to oppression.

Previous data has suggested an association between tonic GSP and cognitive activity. In the present physiological data there was a

borderline interaction between slide type and oppression reaction category in the tonic GSP. African-Americans, representing the three identity formations (oppression reaction categories), observed the two sets of slides depicting the assimilation orientation and those reinforcing cultural differences and responded differently. Dunn's post hoc test revealed that tonic GSP significantly increased while African-Americans who were "moving toward the oppressor" observed the slides reinforcing cultural differences; yet decreased while they observed slides reinforcing the assimilation orientation. Putting the present results into the context of the past findings one might speculate that participants in the "moving toward" category tended to engage in a lot more cognitive activity when observing the slides depicting the assimilation orientation and considerably less when observing hierarchical culture difference orientation. Further, the "moving away" and the "moving against" were considerably lower in tonic GSP than "moving toward" when observing the assimilation orientation, yet responded approximately the same when observing the hierarchical depictions of cultural difference. Thus one might speculate they thought less while observing the slides depicting an assimilation orientation, taking the slides or even the experiment for granted and/or enjoyed the pictures they saw being familiar with this type of confrontation on a day-to-day basis. However, because the level of significance was borderline at the .10 level, one cannot draw any firm conclusions. If a larger sample verified these differences between African-Americans in the "moving toward" and other categories, then one might conclude that African-Americans are very comfortable and

"at home" being stimulated by material that presents their orientation. This is a very "common sense" conclusion and relates to Erikson's (1964) discussion in the introduction of his presentation when he speaks of threatening the security of African-Americans "historically successful identity." That is, he explained, they are brought face to face with the fact that they are culturally different, and mainstream society negates that difference.

African-Americans in the categories "moving toward," "moving away," and "moving against" rated the slides significantly different from each other as Tables 4 and 5 indicate. Blacks who respond to their oppression by "moving away" and "moving against the oppressor" gave a mean rating of 4.2 and 3.8 respectively to all ten slides. On the 7-point scale these means fall into the range of "neutral," as the scale was labeled. However, African-Americans "moving toward the oppressor" were "fairly pleased" with these same 10 slides depicting non-violent oppression, giving them a mean of 4.6. Thus those in the "moving toward" category rated the slides with means of 0.4 and 0.8 units "more pleasant" than their counterparts in the "moving away" and "moving against," respectively.

While African-Americans "moving away from the oppressor" tended to be consistent with their hypothesized orientation of psychologically distancing themselves from harsh realities of a racist society. African-Americans "moving against the oppressor" were "distancing" themselves also, as indicated by their ratings of the slides. The fact that "moving away" and "moving against" rated the slides as they did but showed no physiological responses may be due to an ability to

function on a level of consciousness that allows them to perceive racial oppression, yet not respond on an emotional level. In retrospect, Erikson (1964) seemed to generalize when he wrote about the entire issue of black identity. He has been persistant about the issue that African-Americans have problems "spanning the whole phenomenology of aggravated identity confusion...." He speaks of all blacks as if they are a homogeneous group. He consistently comes short in specifying what particular group of African-Americans--lower, upper, middle classes, northern, southern born, West Indian, etc.--have a host of identity problems and therefore do not reach his ideal (positive identity). The present results showed important differences. African-Americans "moving against the oppressor" scored slides representing the assimilation orientation in the neutral range and African-Americans "moving away from the oppressor" responded neutrally to slides depicting cultural differences. What has to be remembered, examining the "moving away" participants, at least, is that these men made these ratings because they fit with their identity and that identity formation is a life-time process of consistent growth and/or change that has to be confronted daily.

Knowing this helps in the understanding of the findings that African-Americans "moving toward the oppressor" consider non-violent oppression as "fairly pleasant." They did not differentiate between the two groups of slides and considered both groups, one reinforcing assimilation and the other reinforcing hierarchical cultural differences as fairly pleasant. These findings tend to reinforce the idea that they "have bought" into mainstream thinking and "identify with the

aggressor." When they see the pictures they may think and accept the portrayal of mainstream stratification. They are in the process of fulfilling a need to be accepted by a people that reinforce oppression by their lack of awareness of their capitalist materialist ideology (Stokes, 1979).

Thomas and Thomas (1971) refer to this bind as negromachy--the state which exists when African-Americans are confused about their self-worth and depend upon white society for the definition of themselves. They exhibit attributes of subservience, compliance, repressed rage, and are oversensitive to racial issues:

> The identity change in Afro-Americans with the advent of becoming Black has the therapeutic gain of fostering a resynthesizing experience in people, who in many ways were mentally ill (emphasis added). W.E.B. Dubois was among the first to note this alienation in Afro-Americans, and the "twoness," that is, wanting to feel a part of society while being made to feel apart from it. Until that conflict is resolved it is virtually impossible to take a stand on any issue that affects one's security or survival. The removal of that constraining force allows for an existential restructuring of values that promote a more cogent self-concept. (p. 78)

Continuing,

> Inherent in this concept of approval is the need to be accepted as something other than what one is. Gratification is based upon denial of self and a rejection of group goals and activities. The driving force behind this need required Afro-Americans to seek approval from whites in all activities, to use white expectations as the yardstick for determining what is good, desirable or necessary. Any indication of rejection by or hostility from whites results in these Afro-Americans changing their pattern of actions, even when the individual hurts himself and others of his people. Such brothers and sisters become

> parasites who are undemanding and content with little or nothing. They prefer to have goal directed actions that fit into adoptive patterns, which will not be criticized by whites. (p. 104)

It is interesting to note that African-Americans "moving away from the oppressor" considered slides representing the assimilation orientation to be fairly pleasant. Because of his dual lifestyle and the associations he must encounter with whites "on the job" and he may have learned that assimilation is the only or the best solution to the problem of racism. For example, in photo three (see Appendix B) if one assimilates and accepts values of mainstream society one will acquire a "comfortable" lifestyle (i.e., home in suburbia, two-car garage, and a boat).

It is not surprising that African-Americans "moving against the oppressor" responded as "fairly unpleasant" to slides reinforcing cultural differences. Because these African-Americans have achieved Nigrescence-process of becoming Black (Cross, 1978), they are disenchanted with the negation of hierarchical cultural differences and are aware that these differences, as portrayed in the dominant white society, include white being superior and black being inferior. For example, in photo ten one observes a young female holding up an American flag representing "justice for all"; the picture is reflecting mainstream thinking and values of America.

Informal Discussion

An attempt has been made with this research to investigate identity and stress among an African-American population. Because the

paradigm of reaction to oppression is relatively new to the empirical study of identity, many limitations are now apparent that were unforeseen with the initiation of the project. The principal limitation seems to be in the development of the identity scale and the stimulus materials used to elicit physiological responses on the part of the subjects.

Three categories of reaction to oppression, although defined clearly, must be differentiated empirically in a much more specific fashion. One way would be to follow general test-building procedures. It appears as though, based upon the present data, a version of the present identity scale, or a variation of it and the three principle response categories, could be built. Although it may be premature without the necessary theoretical framework one solution to instrument-building would be to tie into the work of Akbar (1980). Akbar targets the empirical basis for differentiation with his categories of African-American psychopathology. In his system, the alienated self disorder, anti-self disorder, and self-destructive self disorder can be viewed as degrees of manifesting the "moving toward" and "moving away" reaction patterns. Perhaps it would be preferable to build from Akbar at this time because his model is developed from an African-American perspective while the present instrument is a reaction to the Euro-American mode.

There presently exists within African-American psychology, a theory that would now allow for the clearer definition and elaboration of the nature of oppression discussed above. That theory (Myers, 1980) articulates the point of view that what is at issue is the different

cultural world views of African-American and Euro-American peoples. Therefore, investigation might better be geared toward examination of cultural identification patterns that are European-American versus African. This change would allow for the development of an identity scale that has a more positively and easily identified and differentiated basis. With this instrument, further insight into the current topic might be found.

Other ideas for future work in this area are:

1. To use slides that cover a wider area of the Black Experience. For example slides depicting a person taking a black power stance.
2. Use a sample covering a wider range of social class. The sample was, for the most part, educated. Being educated may explain why responses did not vary to the extent expected. The participants were "intelligent" enough to offer responses coinciding with experimenter demand (see Rosenthal, 1968). Social class may have also explained the skewed sample in terms of the scores on the MSIS. The lowest score achieved on the MSIS was 36. Scores could have fallen below zero which would have indicated "moving toward" without a doubt or question.
3. Use women. Black women's experience is very different from the Black male (Wallace, 1979). The present sample had a high level of black consciousness as indicated by the positive scores on the MSIS. This high level of black consciousness could be also correlated with the male population and their

strong association with being "macho." Females need to be tested to see if this assumption holds true.

4. Use non-verbal reactions to the viewing of slides; non-verbal view of how subjects observe the slides in the present study.

A systematic attempt has been made to further investigate and specify what and how groups of African-Americans experience aggravated identity confusion and why. Further investigation must occur so that Uncle Tom and Mr. Charlie conclusions will not be made in place of empirically derived conclusions.

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APPENDIX A

The Myers/Stokes Identity Scale (MSIS)

Name: _____ Classification:

Phone Number: _____ SES - Lower
Middle
Upper

Age: _____

Geographical History: _____

Please rate respond to the following statements:

Strongly Disagree = SD Neutral = N Agree = A
Disagree = D Strongly Agree = SA

1. _____ Western culture has proven itself to be far superior to any other, as evidenced by its proliferation throughout the world.

2. _____ If black people worked a little harder, they would be in a better position.

3. _____ Black people have worked for over 400 years to build this country and still do not have equal status due to racism.

4. _____ Because whites control the material wealth throughout the world, one must acknowledge some kind of superiority.

5. _____ Black males have exhibited much strength and power in their history, as evidenced by the fact that they have survived despite their dire oppression.

6. _____ Material gain doesn't make white men superior.

7. _____ The more money one makes, the more respect one can rightfully command.

8. _____ White women set the beauty standards because they exemplify all the most attractive characteristics.

9. _____ Assimilation and integration should be rejected by African Americans because it negates their identity and reinforces their oppression.

10. _____ Black people have been denied access to their African culture heritage which is very rich and complex.

11. _____ African people have had a prideful history, indeed it is now being acknowledged that many early "Greek" philosophers such as Pythagoras, Plato, Socrates, and Aristotle studied in Africa.

12. _____ Integration and assimilation are the only ways to gain equality in this society.

13. _____ Black people should not trust each other because they are each others true competition.

14. _____ The money one makes has nothing to do with one's self-worth.

15. _____ Whites can comprehend more quickly than blacks because of their native intelligence.

16. _____ Black women should not adhere to the beauty standards set by whites, but be proud and set their own standards based on their natural characteristics.

17. _____ Black people became relevant to the history of mankind only around 1865 with the conclusion of slavery.

18. _____ I need to know more about my African heritage, which has been systematically negated by Euro-Americans.

19. _____ The way to get ahead in the system is to know whites personally and "get in good" with them.

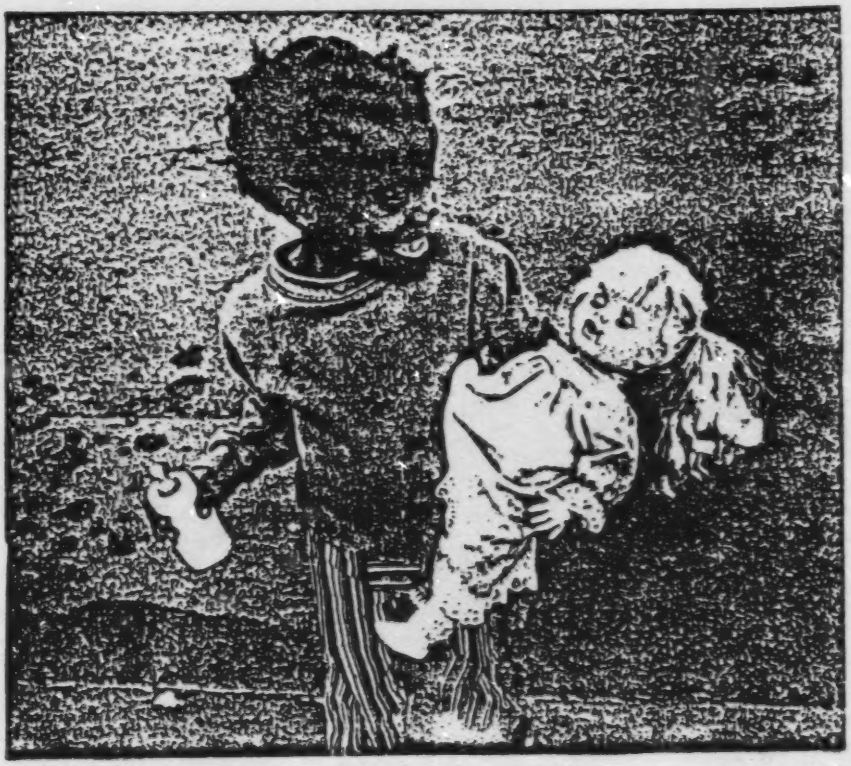
20. _____ Most blacks are somewhat lazy and irresponsible because they lack achievement motivation.

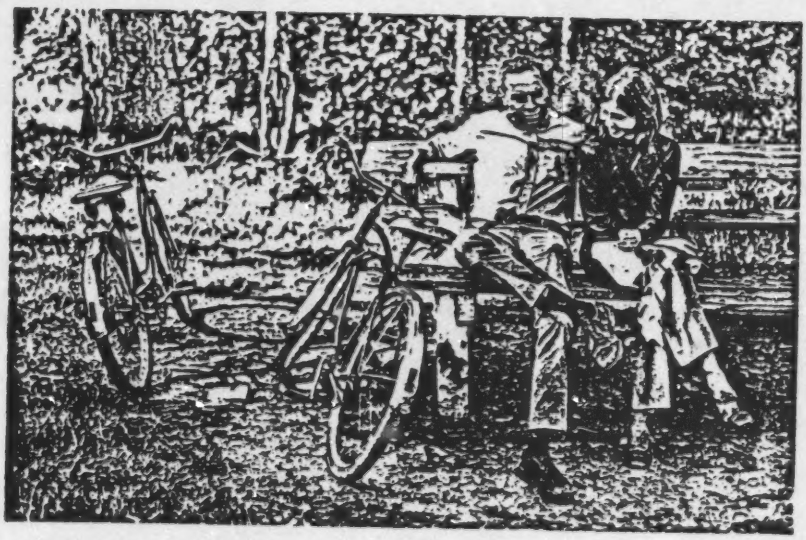
21. _____ White males are capable of controlling the world because of their superior intellect and technical skills.

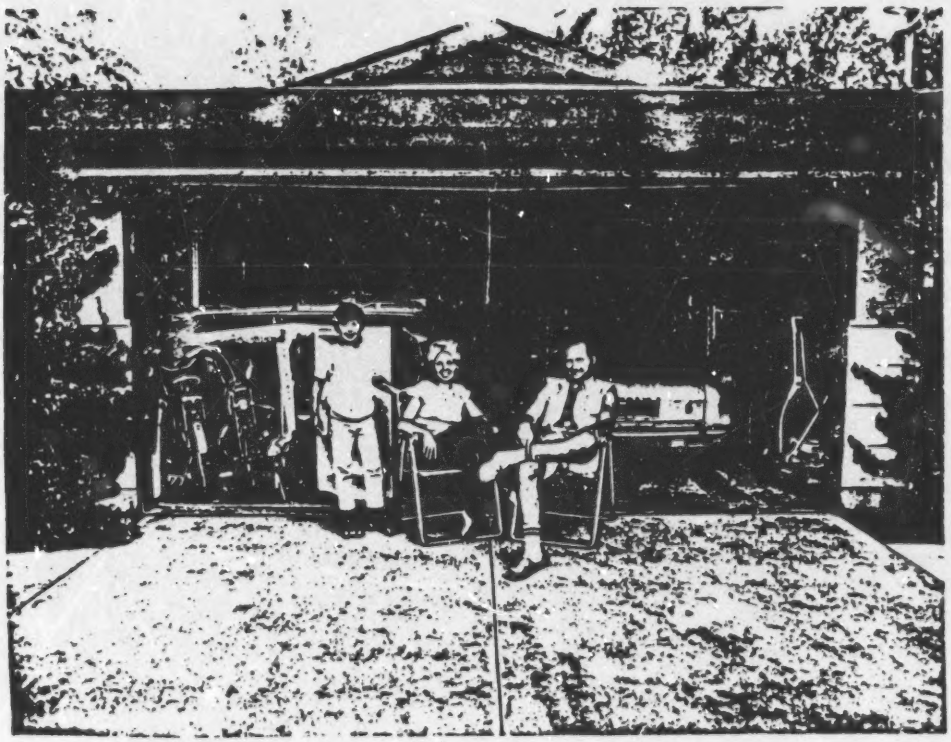
22. _____ Black people are incapable of handling responsible positions successfully because they lack the necessary cultural experiences.

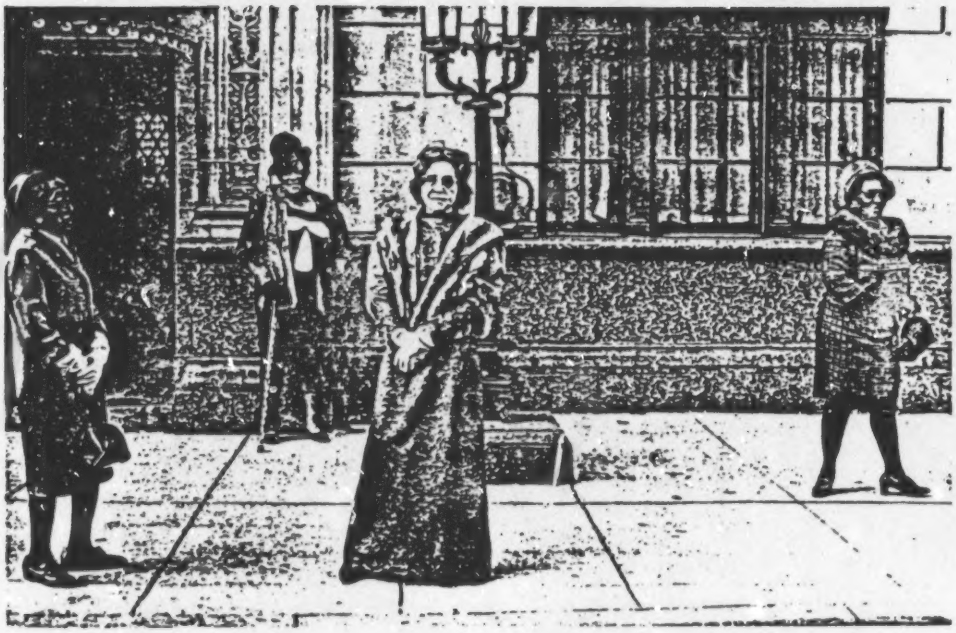
APPENDIX B

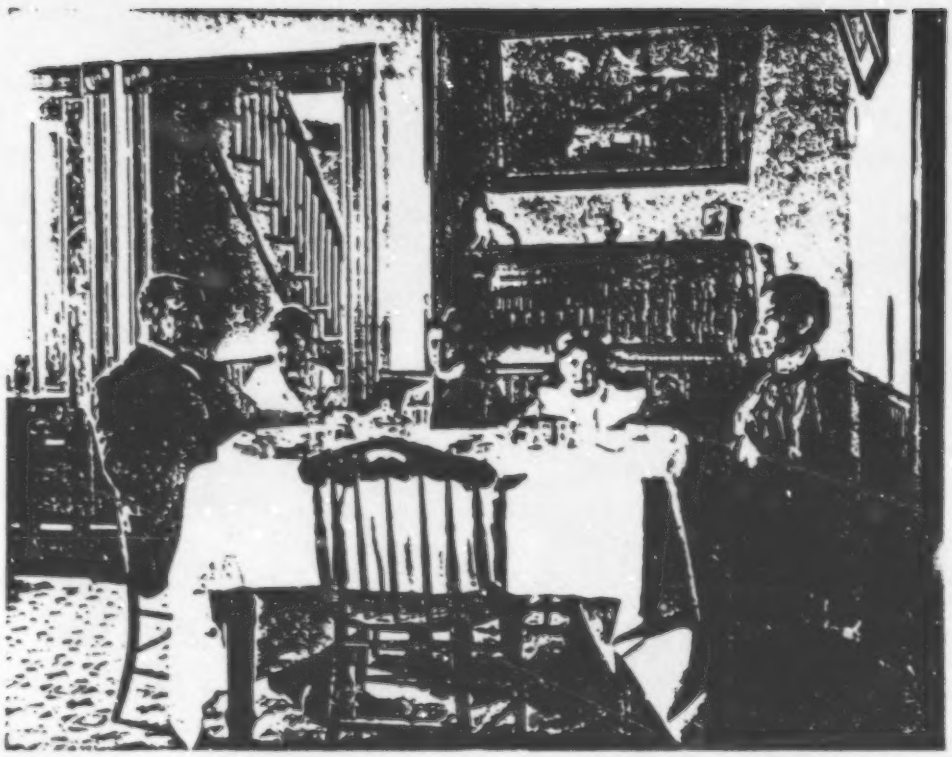
Ten Pictures











APPENDIX C

Rating (Cardbcard) Classifications

I found the last slide:

1. Extremely Unpleasant	2. Moderately Unpleasant	3. Fairly Unpleasant	4. Neutral	5. Fairly Pleasant	6. Moderately Pleasant	7. Extremely Pleasant